

**Abstract (Basic): DE 3328773 A**

The laser interferometer system produces four interference signals each phase shifted by 90 deg. by superimposing a coherent measurement and reference beam. It is able to measure over great distances. An identical pair of transducer units, each contg. four photoreceivers, and one or more polarisation dividers are suitably arranged so that after the interference path has been covered the interference signals produced fall on one or other transducer unit depending on rotation of the plane of polarisation through 90 deg.

Two linearly polarised light waves of different frequency and orthogonal polarisation orientation, pref. two laser modes, are passed along the same optical path. Their individual interference signals are separated by the polarisation divider in the interferometer block and directed to both transducer units.

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Title Terms: LASER; INTERFEROMETER; OPTO; ELECTRIC; DISTANCE; MEASURE; DEVICE; MEASURE; DISTANCE; TWO; LASER; MODE; PATH

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Optical int rference device for measuring displacement - with coherent radiation split into two beams and passed between planar interferometer and conducting surface

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